IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1(Original). A method of implementing an n-th order IIR filter which comprises the steps of:

providing an IIR filter of order less than n; and

operating said IIR filter of order less than n on a time-sharing basis a plurality of times such that said plurality of times multiplied by the order of said IIR filter of order less than n is equal to or greater than n.

2(Original). The method of claim 1 wherein said plurality of times multiplied by said order is equal to n.

3 (Currently Amended). The method of claim 1 further including providing a decoder coupled to ~~said~~ an input terminal of the IIR filter.

4 (Currently Amended). The method of claim 2 further including a providing decoder coupled to ~~said~~ an input terminal of the IIR filter.

5 (Currently Amended). An ~~implementstion~~ implementation of an n-th order IIR filter which comprises:

an IIR filter of order less than n; and

means to operate said IIR filter of order less than n on a time-sharing basis a plurality of times such that said plurality of times multiplied by the order of said IIR filter of order less than n is equal to or greater than n.

6(Original). The implementation of claim 5 wherein said plurality of times multiplied by said order is equal to n.

7(Currently Amended). The implementation of claim 5 further including a decoder coupled to ~~said~~ an input terminal of the IIR filter.

8(Currently Amended). The implementation of claim 6 further including a decoder coupled to ~~said~~ an input terminal of the IIR filter.

9 (New). A method according to claim 1, wherein a number of clock cycles required for computing an output of the IIR filter is independent of filter coefficients of the IIR filter.

10 (New). The implementation of claim 5, wherein a number of clock cycles required for computing an output of the IIR filter is independent of filter coefficients of the IIR filter.